

**IN THE CLAIMS**

1. – 6. (previously canceled)

7. – 12. (canceled without prejudice)

13. (new)      A method of fabricating an apparatus, the method comprising:  
                  fabricating a bottom electrode layer on a substrate, the bottom electrode layer  
  having an opening;  
                  fabricating a piezoelectric layer on the bottom electrode layer and on the substrate;  
                  fabricating a top electrode layer on the piezoelectric layer and on the substrate;  
                  wherein overlapping portions of the bottom electrode layer, the piezoelectric layer,  
  and the top electrode layer forming a resonator; and  
                  fabricating a bonding pad on the bottom electrode layer, the bonding pad in contact  
  with the substrate through the opening of the bottom electrode, the bonding  
  pad and the substrate forming a diode.

14. (new)      The method recited in claim 13 wherein the top electrode layer has an  
                  opening; and further comprising a step of fabricating a bonding pad on the top  
                  electrode layer, the bonding pad in contact with the substrate through the opening of  
                  the top electrode, the bonding pad and the substrate forming a diode.

15. (new)      The method recited in claim 13 further comprising a step of fabricating a  
                  seed layer under the bottom electrode layer.

16. (new)      The method recited in claim 16 wherein the seed layer having an opening  
                  aligned with the opening of the bottom electrode allowing the bonding pad to  
                  contact the substrate through the opening.

17. (new) The method recited in claim 13 wherein said bonding pad forms a Schottky diode with the substrate.
18. (new) The method recited in claim 13 wherein said bonding pad comprises conductor selected from a group consisting of gold, nickel, and chrome.
19. (new) The method recited in claim 13 wherein the piezoelectric layer comprises Aluminum Nitride and said bottom and top electrode layers comprises Molybdenum.
20. (new) The method recited in claim 13 wherein the bottom electrode includes a plurality of openings through which the bonding pad contacts the substrate.

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